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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/820,341

Applicant(s)

COOPER ET AL.

Examiner

OLUJIMI A. ADESANYA

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF-298)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

2. Applicant's arguments filed 10/9/2009 have been fully considered but they are not persuasive.

As per applicant's arguments regarding claims 33 and similar claims 23 and 44, applicant argues that Mekikian does not follow the steps of the current invention since applicant's annotations are obtained prior to the searching of the content storage and as such can not be the same as the TAGS mentioned in Mekikian, and that selectively firing a respective action of each of the plurality of rules based on respective results of the comparing as described in cited portions of Mekikian is performed based on the output and not prior to the searching of the content storage as claimed (Amendment, pg 12- pg 13, ln 17). The examiner respectfully disagrees.

Mekikian discloses associating annotations with the elements in a query ("what are the ski conditions like in Aspen?"...generate TAGS...for Aspen, such as "ski rental"...Flying to Aspen", pg 28, ln 20-27, Aspen as element associated with the TAGS/annotations), comparing respective conditions of each of a plurality of rules against the elements and the annotations (After all elements in the question have been matched, the sentences are sorted... sorted sentence list, a decision is made..., if the answer quality...is high..., if several of the top...have close scores..., pg 25, ln 10-29, if..., as rules, score of answers as conditions) and then selectively firing a respective

action of each of the plurality of rules based on respective results of the comparing (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions), Mekikian further discloses using the obtained TAGS to search the content storage subsequent to the comparison of the conditions of the rules with the elements and annotations ("LATEST Aspen news, Traveling in Aspen...." These TAGS are then used to extract appropriate information from information sources...., pg 29, ln 14-22; pg 15, ln 1-5, ln 22-29). Therefore the examiner maintains that Mekikian discloses the limitations of claim 33 as well as similar claims 23 and 44.

As per applicant's arguments regarding new claims 55-57, applicant argues that Mekikian does not teach "the actions selectively fired by the rules...define a search criteria" or where "the actions selectively fired by the rules" specify "weightings" used in "determining relevance to the query of individual documents in the information" and "wherein the rules identify both the concept representing the intent of the query to be addressed in the information and the weightings determining the relevance of the documents in the information" (Amendment, pg 14, **New Claims**). The examiner respectfully disagrees.

Mekikian discloses the limitations of the new claims as recited below;
prior to receiving the query, establishing the content storage during an indexing mode by importing structured content and/or unstructured content into the content storage (sentences, Article, index file, index numbers, pg 12, ln 24 - pg 13; pg 14, ln 22-27);using the actions selectively fired by the rules to define a search criteria including

the concept and using the search criteria when searching the content storage as at least a part of the one or more information retrieval technologies (matching of elements in a question with elements in an index file...., displayed, pg 6, ln 18-24; if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions; LATEST Aspen news, Traveling in Aspen....” These TAGS are then used to extract appropriate information from information sources....., pg 29, ln 14-22; pg 15, ln 1-5, ln 22-29); specifying weightings via the actions selectively fired by the rules (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions, scores as weightings); determining relevance to the query of individual documents in the information according to the weightings (quality of the answer...., pg 25, ln 11-29); displaying the documents according to the relevance (top of the scoring...., pg 25, ln 11-29); and wherein the rules identify both the concept representing the intent of the query to be addressed in the information and the weightings determining the relevance of the documents in the information (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions) wherein the one or more information retrieval technologies include one or more of keyword searching, document-level relevance-based searching, and ontology-based searching (relevant documents....., pg 26, ln 1-11).

Claim Rejections - 35 USC § 102

1. **Claims 23, 25, 32-34, 39, 42 and 43** are rejected under 35 U.S.C. 102(b) as being anticipated by Mekikian et al WO 2001/018862 A2 ("Mekikian")

As to **claim 23**, Mekikian discloses a system comprising:

a language analysis module configured to parse a query into elements (receiving segments....e.g. sentences, each segment having elements..., pg 5, ln 20-25; matching elements in a question with elements in an index file..., pg 6, ln 18-20, fig 1-3 elements as portions of parsed query) and

to associate one or more annotations with respective ones of at least some of the elements, a type of each of the annotations being either canonical or conceptual ("what are the ski conditions like in Aspen?"...generate TAGS...for Aspen, such as "ski rental"...Flying to Aspen", pg 28, ln 20-27, Aspen as element associated with the TAGS/annotations);

a rules engine coupled to the language analysis module to receive the elements and the annotations, the rules engine configured to perform a comparison of a condition of a rule against the elements and the annotations (After all elements in the question have been matched, the sentences are sorted... sorted sentence list, a decision is made..., if the answer quality...is high..., if several of the top...have close scores..., pg 25, ln 10-29; fig 3, if..., as rules, score of answers as conditions), and

to selectively enable an action of the rule based upon a result of the comparison (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions);

a response generator coupled to the rules engine and configured to display information in response to the action (display, pg 25, ln 10-29; fig 11-14 as a way of producing information); and

wherein the action when enabled selects one of one or more information retrieval technologies to produce the information, and wherein the selected information retrieval technology is configured to search content storage via a semantic index to produce at least a portion of the information (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24; if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions).

wherein the search of the content storage is subsequent to the comparison of the condition of the rule against the elements and the annotations ("LATEST Aspen news, Traveling in Aspen...." These TAGS are then used to extract appropriate information from information sources....., pg 29, ln 14-22; pg 15, ln 1-5, ln 22-29)

As to **claim 25**, Mekikian discloses the system of claim 23, wherein the action specifies one or more of the elements and the annotations as keys used to access the semantic index (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24).

As to **claim 32**, Mekikian discloses the system of claim 23, wherein the language analysis module is further configured to process the content storage to form the semantic index (fig 2).

As to **claim 33**, Mekikian discloses a method comprising:

searching, by a computer, content storage using a key to a semantic index (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24; "LATEST Aspen news, Traveling in Aspen...." These TAGS are then used to extract appropriate information from information sources..., pg 29, ln 14-22; pg 15, ln 1-5, ln 22-29);

prior to the searching of the content storage;

receiving a query (pg 1, ln 17-22);

parsing the query into elements (receiving segments....e.g. sentences, each segment having elements..., pg 5, ln 20-25; matching elements in a question with elements in an index file..., pg 6, ln 18-20, elements as portions of parsed query)

associating one or more annotations with respective ones of at least some of the elements ("what are the ski conditions like in Aspen?"...generate TAGS...for Aspen, such as "ski rental"...Flying to Aspen", pg 28, ln 20-27, Aspen as element associated with the TAGS/annotations);

comparing respective conditions of each of a plurality of rules from a rules dictionary against the elements and the annotations (After all elements in the question have been matched, the sentences are sorted... sorted sentence list, a decision is made..., if the answer quality...is high..., if several of the top...have close scores..., pg 25, ln 10-29, if..., as rules, score of answers as conditions);

selectively firing a respective action of each of the plurality of rules based on respective results of the comparing (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29,

display options as actions);

matching, by at least one of the rules, a plurality of the elements and the annotations to a concept representing an intent of the query, wherein each of the plurality of the elements and the annotations corresponds to one or more words of the query (generate ad TAGS, "what are the ski conditions like in Aspen?"...generate TAGS...for Aspen...the ads are presented...along with the answer to the question, pg 28, In 20 – pg 29, In 2; by "element"..., we mean a concept...in the sentence, pg 15, In 6-8), and wherein the concept is used as the key to the semantic index used in the searching of the content storage (matching of elements in a question with elements in an index file..., displayed, pg 6, In 18-24; "LATEST Aspen news, Traveling in Aspen...." These TAGS are then used to extract appropriate information from information sources..., pg 29, In 14-22; pg 15, In 1-5, In 22-29):

in response to the selective firing of at least one of the respective actions of at least one of the rules, operating one or more information retrieval technologies to produce respective information (display, pg 25, In 10-29, as a way of producing information); wherein the one or more information retrieval technologies include the searching of the content storage ("LATEST Aspen news, Traveling in Aspen...." These TAGS are then used to extract appropriate information from information sources..., pg 29, In 14-22; pg 15, In 1-5, In 22-29); and

displaying the information (These TAGS are then used to extract appropriate information from information sources...,page ...presented to the user..., pg 29, In 14-22; pg 15, In 1-5, In 22-29,

As to **claim 34**, Mekikian discloses the method of claim 33, wherein the matching is via a regular expression language (language, pg 31, ln 28 – pg 32, ln 6).

As to **claim 39**, Mekikian discloses the method of claim 33, wherein the comparing is via a regular expression language (language, pg 31, ln 28 – pg 32, ln 6).

As to **claim 42**, Mekikian discloses the method of claim 33, further comprising:

determining a respective relevancy of each of at least some of the firing actions and selectively performing each of the at least some of the firing actions based upon the respective relevancy (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, score as relevancy).

As to **claim 43**, Mekikian discloses the method of claim 42, wherein the respective relevancy of a particular one of the firing actions is based on the ones of the elements and the annotations that contributed to the respective results of the comparing that selectively fired the particular firing action (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, score as relevancy).

As to **claim 55**, Mekikian discloses the method of claim 33, further comprising:

prior to receiving the query, establishing the content storage during an indexing mode by importing structured content and/or unstructured content into the content storage (sentences, Article, index file, index numbers, pg 12, ln 24 - pg 13; pg 14, ln 22-27);

using the actions selectively fired by the rules to define a search criteria including the concept and using the search criteria when searching the content storage as at least

a part of the one or more information retrieval technologies (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24; if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions; LATEST Aspen news, Traveling in Aspen....” These TAGS are then used to extract appropriate information from information sources..., pg 29, ln 14-22; pg 15, ln 1-5, ln 22-29).

As to **claim 56**, Mekikian discloses the method of claim 33, further comprising:
specifying weightings via the actions selectively fired by the rules (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions, scores as weightings);

determining relevance to the query of individual documents in the information according to the weightings (quality of the answer..., pg 25, ln 11-29);

displaying the documents according to the relevance (top of the scoring..., pg 25, ln 11-29); and

wherein the rules identify both the concept representing the intent of the query to be addressed in the information and the weightings determining the relevance of the documents in the information (if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, display options as actions).

As to **claim 57**, Mekikian discloses the method of claim 33, wherein the one or more information retrieval technologies include one or more of keyword searching, document-level relevance-based searching, and ontology-based searching (relevant

documents...., pg 26, ln 1-11).

Claim Rejections - 35 USC § 103

2. **Claims 31, 44-45, 50, 53 and 54** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mekikian

As to **claim 31**, Mekikian discloses the system of claim 23,

Mekikian does not explicitly disclose but suggests selectively enabling an action based on comparing peripheral information distinct from a query against a business condition of a rule (business, log includes...identification of the user...questions asked...log is analyzed to generate pre-defined reports..., pg 30, ln 26 - pg 31, ln 15; fig 10, log as peripheral information)

At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize a method/system wherein the rules engine is further configured to selectively enable an action based on comparing peripheral information distinct from a query against a business condition of a rule, so as to generate reports specific to a corporation or an individual.

As to **claim 44**, Mekikian discloses buffers and databases (fig 2 - 3) but does not explicitly disclose a computer readable medium or instructions to perform the limitations of claims 33 and 44.

However, at the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize a computer readable medium comprising instructions, so as to store information and provide a way of updating original information.

computer readable medium claim 44 and method claim 33 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 44 is similarly rejected under the same rationale as applied above with respect to method claim 33.

As to **claim 45**, Mekikian discloses the computer readable medium of claim 44,

Computer readable medium claim 45 and method claim 34 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 45 is similarly rejected under the same rationale as applied above with respect to method claim 34.

As to **claim 50**, Mekikian discloses the computer readable medium of claim 44, Computer readable medium claim 50 and method claim 39 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 50 is similarly rejected under the same rationale as applied above with respect to method claim 3.

As to **claim 53**, Mekikian discloses the computer readable medium of claim 44, Computer readable medium claim 53 and method claim 42 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 53 is similarly rejected under the same rationale as applied above with respect to method claim 42.

As to **claim 54**, Mekikian discloses the computer readable medium of claim 53, Computer readable medium claim 54 and method claim 43 are related as computer readable medium and the method of using same, with each claimed element's function

corresponding to the claimed method step. Accordingly claim 54 is similarly rejected under the same rationale as applied above with respect to method claim 43.

3. **Claims 24, 26-30, 35-38, 40-41, 46-49 and 51-52** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mekikian et al WO 2001/0188662 A2 ("Mekikian") in view of Lin et al US 6,675,159 B1 ("Lin")

As to **claim 24**, Mekikian discloses the system of claim 23,

Mekikian does not explicitly disclose matching ones of the elements against concepts stored in a multi-layered concept repository to produce the conceptual annotations (col. 9, ln 55-65; col. 27, ln 1-22).

However, this feature is well known as is evidenced by **Lin** (transforms input sentences into...tagged instances of concepts..., col. 9, ln 55-65; ontology, col. 8, ln 51-55; parent concept, col. 27, ln 1-22; col. 26, ln 42-62)

At the time of the invention it would have been obvious to one of ordinary skill in the art to implement matching ones of the elements against concepts stored in a multi-layered concept repository to produce the conceptual annotations, so as to show the relation of the element to other concepts (Lin, col. 27, ln 1-14).

As to **claim 26**, Mekikian discloses the system of claim 23, and wherein the action specifies the concept as a key used to access the semantic index (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24).

Mekikian **does not** explicitly disclose associating via a regular expression language specifying the condition of the rule, a plurality of the elements and the annotations with a concept in a multi-layered concept repository

However, this feature is well known as is evidenced by Lin (transforms input sentences into...tagged instances of concepts..., col. 9, ln 55-65; ontology, col. 8, ln 51-55; parent concept, col. 27, ln 1-22; col. 26, ln 42-62)

At the time of the invention it would have been obvious to one of ordinary skill in the art to implement associating via a regular expression language specifying the condition of the rule, a plurality of the elements and the annotations with a concept in a multi-layered concept repository, so as to show the relation of the element to other concepts (Lin, col. 27, ln 1-14).

As to **claim 27**, Mekikian in view of Lin disclose the system of claim 26,

Mekikian discloses wherein the rule is one of a plurality of rules, each of the rules having a respective condition and a respective action (After all elements in the question have been matched, the sentences are sorted... sorted sentence list, a decision is made..., if the answer quality...is high....displayed alone, if several of the top...have close scores...they can all be displayed, pg 25, ln 10-29, if..., as rules, score of answers as conditions, display as action); and

the selected information retrieval technology is a first selected information retrieval technology, and the at least a portion of the information is a first portion of the information ("what are the ski conditions like in Aspen?"...generate TAGS...for Aspen,

such as "ski rental"...Flying to Aspen", pg 28, ln 20-27; if the answer quality...is high....displayed alone, pg 25, ln 14-29); and

a second one of the actions when enabled selects a second distinct one of the information retrieval technologies, and the second selected information retrieval technology is configured to supply a managed answer as a second portion of the information (if several of the top...have close scores...they can all be displayed, pg 25, ln 14-29; generate pre-defined reports..., pg 30, ln 26-pg 31).

As to **claim 28**, Mekikian in view of Lin disclose the system of claim 27,

Mekikian discloses wherein a third one of the actions when enabled provides a bias requirement, and wherein the response generator is configured to selectively display the information based on the bias requirement (bias can be applied to cause the display..., pg 25, ln 14-29)

As to **claim 29**, Mekikian in view of Lin disclose the system of claim 28 and the response generator,

Mekikian does not explicitly disclose but suggests wherein the response generator is configured to display the first portion of the information in a first portion of a screen, and to display a second portion of the information in a second separate portion of the screen (that sentence could be displayed alone...they can all be displayed...bias can be applied to cause the display of high-scoring sentences..., pg 25, ln 14-29)

At the time of the invention, it would have been obvious to one of ordinary skill in the art to display a first portion of the information in a first portion of a screen, and to display a second portion of the information in a second separate portion of the screen, so as to

differentiate between the documents/sentences returned by the response generator.

As to **claim 30**, Mekikian in view of Lin disclose the system of claim 27,

Mekikian discloses wherein the managed answer is specified via the one of the rules having the second action (pg 25, In 14-29; generate pre-defined reports..., pg 30, In 26-pg 31)

As to **claim 35**, Mekikian discloses the method of claim 34, and the rule examples

Mekikian does not explicitly disclose wherein the matching determines if at least one of the plurality of the elements and the annotations shares a common ancestor in a multi-layered concept repository with a question example of the at least one of the rules.

However, this feature is well known as is evidenced by **Lin** (transforms input sentences into...tagged instances of concepts..., col. 9, In 55-65; ontology, col. 8, In 51-55; parent concept, col. 27, In 1-22; col. 26, In 42-62)

At the time of the invention it would have been obvious to one of ordinary skill in the art to implement matching which determines if at least one of the plurality of the elements and the annotations shares a common ancestor in a multi-layered concept repository with a question example of the at least one of the rules, so as to show the relation of the element to other concepts (Lin, col. 27, In 1-14).

As to **claim 36**, Mekikian in view of Lin disclose the method of claim 35,

Mekikian discloses wherein the one of the information retrieval technologies is a first one of the information retrieval technologies, and further comprising:

in response to a first one of the firing actions, operating the first information retrieval technology (if the answer quality...is high....displayed alone, pg 25, In 14-29);

in response to a second one of the firing actions, operating a second distinct one of the information retrieval technologies (if several of the top...have close scores...they can all be displayed, pg 25, ln 14-29); and

providing, via the second one of the information retrieval technologies, a managed answer (pg 25, ln 14-29; generate pre-defined reports..., pg 30, ln 26-pg 31).

As to **claim 37**, Mekikian in view of Lin disclose the method of claim 36,

Mekikian discloses wherein the displaying of the information is selectively based on at least some of the firing actions (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24).

As to **claim 38**, Mekikian in view of Lin disclose the method of claim 37,

Mekikian discloses the providing of the managed answer by the at least some of the firing actions a bias requirement and wherein the displaying of the information is selectively based on the bias requirement (pg 25, ln 14-29; generate pre-defined reports..., pg 30, ln 26-pg 31; bias can be applied to cause the display..., pg 25, ln 14-29).

As to **claim 40**, Mekikian discloses the method of claim 39,

Mekikian does not explicitly disclose wherein the associating is, at least in part, via a multi-layered concept repository producing conceptual ones of the annotations

However, this feature is well known as is evidenced by **Lin** (transforms input sentences into...tagged instances of concepts..., col. 9, ln 55-65; ontology, col. 8, ln 51-55; parent concept, col. 27, ln 1-22; col. 26, ln 42-62)

At the time of the invention it would have been obvious to one of ordinary skill in the art to perform the associating at least in part, via a multi-layered concept repository producing conceptual ones of the annotations, so as to show the relation of the element to other concepts

As to **claim 41**, Mekikian in view of Lin disclose the method of claim 40,

Mekikian discloses wherein at least one of the firing actions specifies one or more of the elements and the annotations as additional keys used for the searching of the content storage (matching of elements in a question with elements in an index file..., displayed, pg 6, ln 18-24).

As to **claim 46**, Mekikian discloses the computer readable medium of claim 45,

Computer readable medium claim 46 and method claim 35 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 46 is similarly rejected under the same rationale as applied above with respect to method claim 35.

As to **claim 47**, Mekikian in view of Lin discloses the computer readable medium of claim 46,

Computer readable medium claim 47 and method claim 36 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 47 is similarly rejected under the same rationale as applied above with respect to method claim 36.

As to **claim 48**, Mekikian in view of Lin discloses the computer readable medium of claim 47,

Computer readable medium claim 48 and method claim 37 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 48 is similarly rejected under the same rationale as applied above with respect to method claim 37.

As to **claim 49**, Mekikian in view of Lin discloses the computer readable medium of claim 48,

Computer readable medium claim 49 and method claim 38 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 49 is similarly rejected under the same rationale as applied above with respect to method claim 38.

As to **claim 51**, Mekikian in view of Lin discloses the computer readable medium of claim 50, Computer readable medium claim 51 and method claim 40 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 51 is similarly rejected under the same rationale as applied above with respect to method claim 40.

As to **claim 52**, Mekikian in view of Lin discloses the computer readable medium of claim 51, Computer readable medium claim 52 and method claim 41 are related as computer readable medium and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 52 is similarly rejected under the same rationale as applied above with respect to method claim 41.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUJIMI A. ADESANYA whose telephone number is 571-270-3307. The examiner can normally be reached on Monday-Friday 7.30a.m - 5.00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHEMOND DORVIL can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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